

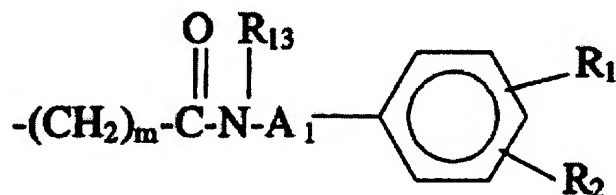
This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

Claim 1 (previously presented): A diagnostic agent comprising an aminocarboxylate ligand complexed with a paramagnetic metal ion wherein a nitrogen atom within said aminocarboxylate is substituted with a group comprising an aromatic amide containing at least one substitution on the aromatic ring, the substitution comprising a group of 3 or more non-hydrogen atoms.

Claim 2 (currently amended): The diagnostic agent of claim 1 wherein said substituted aromatic amide group is of the formula

I



wherein

A_1 is $-(CH_2)_{m'}$ or a single bond;

$(CH_2)_m$ and $(CH_2)_{m'}$ may independently be substituted with alkyl or hydroxyalkyl;

R_1 and R_2 are independently hydrogen,



where R_9 is $C_4 - C_{18}$ a straight or branched chain alkyl or hydroxyalkyl, with the proviso that at least one of R_1 and R_2 must be other than hydrogen;

R_3 and R_4 are independently hydrogen, alkyl, arylalkyl, aryl, alkoxy and hydroxyalkyl;

R_{12} is hydrogen, alkyl or hydroxyalkyl;

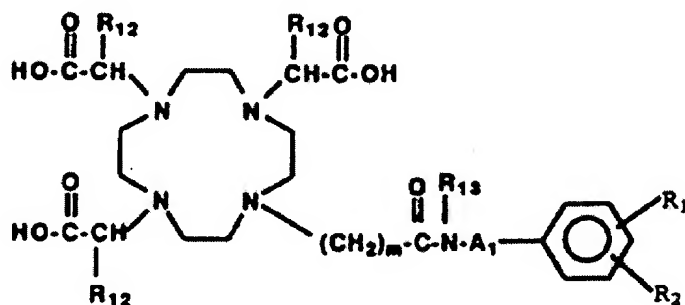
R_{13} is hydrogen, alkyl or arylalkyl, aryl, alkoxy or hydroxyalkyl;

m and m' are independently 0 to 5;

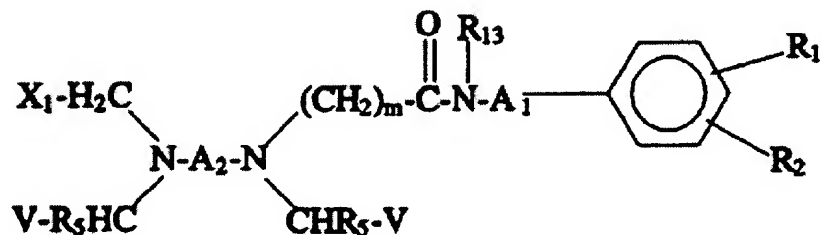
and multimeric forms thereof.

Claim 3 (previously presented): A diagnostic agent of claim 2 wherein said ligand is of the formula

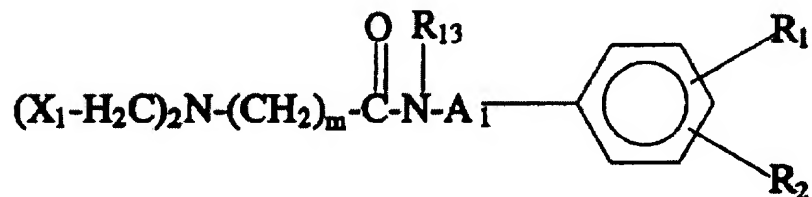
Ia



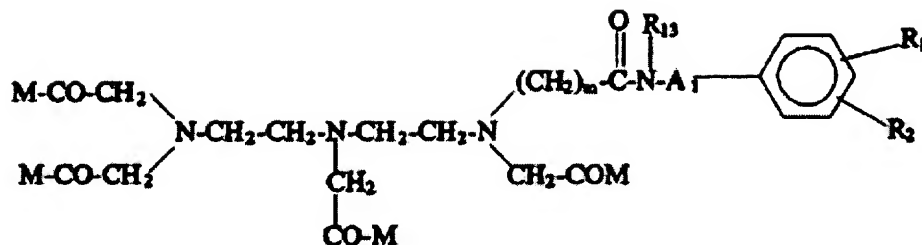
Ib



Ic



Id

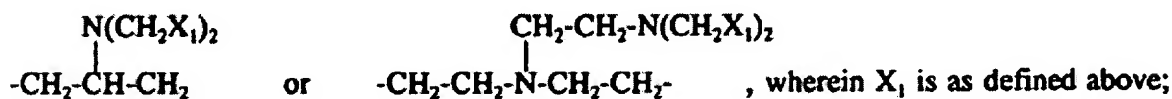


wherein m , R_{13} , A_1 , R_1 , R_2 , and R_{12} are as defined in claim 2 and wherein

X_1 is $-\text{COOY}_1$, PO_3HY_1 or $-\text{CONHOY}_1$;

Y_1 is a hydrogen atom, a metal ion equivalent and/or a physiologically biocompatible cation of an inorganic or organic base or amino acid;

A_2 is $-\text{CHR}_6\text{-CHR}_7-$, $-\text{CH}_2\text{CH}_2(\text{ZCH}_2\text{-CH}_2)_n-$,



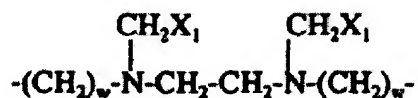
each R_5 is hydrogen or methyl;

R_6 and R_7 together represent a trimethylene group or a tetramethylene group or individually are hydrogen atoms, lower alkyl groups (e.g., 1-8 carbons), phenyl groups, benzyl groups or R_6 is a hydrogen atom and R_7 is a $-(\text{CH}_2)_p\text{-C}_6\text{-H}_4\text{-W-protein}$ where p is 0 or 1, W is $-\text{NH}-$, $-\text{NHCOCH}_2-$ or $-\text{NHCS}-$, protein represents a protein residue;

n is 1, 2 or 3;

Z is an oxygen atom or a sulfur atom or the group NCH_2X_1 or $\text{NCH}_2\text{CH}_2\text{OR}_8$ wherein X_1 is as defined above and R_8 is C_{1-8} alkyl;

V is X_1 or is $-\text{CH}_2\text{OH}$, $-\text{CONH}(\text{CH}_2)_r\text{X}_1$ or $-\text{COB}$, wherein X_1 is as defined above, B is a protein or lipid residue, r is an integer from 1 to 12, or if R_5 , R_6 and R_7 are each hydrogen; then both V 's together form the group

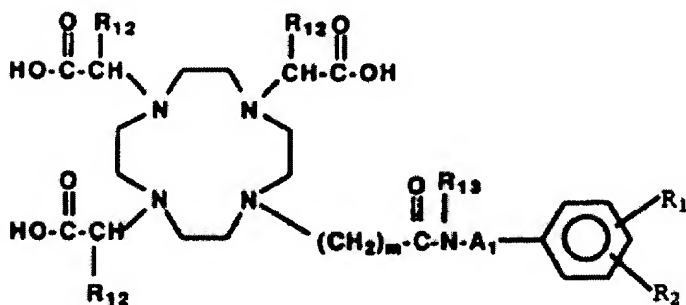


where X_1 is as above, w is 1, 2 or 3, provided that at least two of the substituents Y_1 represent metal ion equivalents of an element with an atomic number of 21 to 29, 42, 44 or 57 to 83; from 1 to 4, advantageously 2 or 3, and preferably 2 M's are -OH and the balance independently are -OR₁₀, -NH₂, -NHR₁₀ and/or NR₁₀R₁₀' wherein R₁₀ and R₁₀' are selected from an organic alkyl radical of up to 18 carbon atoms which may be substituted.

Claim 4 (original): The diagnostic agent of claim 1 wherein said paramagnetic metal ion is gadolinium.

Claim 5 (canceled)

Claim 6 (currently amended): A compound of the formula



wherein

A_1 is $-(\text{CH}_2)_m'$ or a single bond;

$(\text{CH}_2)_m$ and $(\text{CH}_2)_m'$ may independently be substituted with alkyl or hydroxyalkyl;

R_1 and R_2 are each independently hydrogen,

alkyl, $-\text{NO}_2$, $-\text{NH}_2$, $-\text{NHCNHR}_{12}$, $-\overset{\text{S}}{\parallel}\text{C}-\text{NR}_3\text{R}_4$ and NR_3COR_9 where R_9 is C_4 - C_{18} straight or branched chain alkyl or hydroxyalkyl, with the proviso that at least one of R_1 and R_2 must be other than hydrogen;

R_3 and R_4 are independently hydrogen, alkyl, arylalkyl, aryl, alkoxy and hydroxyalkyl;

R_{12} is hydrogen, alkyl or hydroxyalkyl;

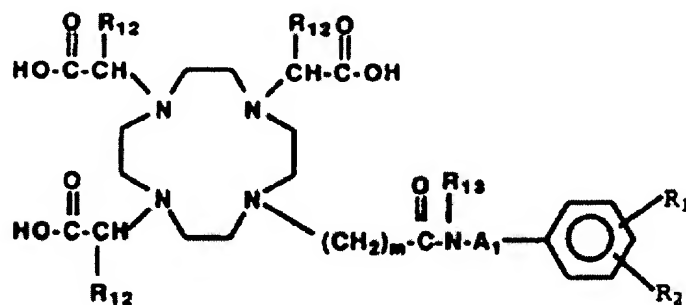
R_{13} is hydrogen, alkyl, arylalkyl, aryl, alkoxy or hydroxyalkyl;

m and m' are independently 0 to 5;

and multimeric forms thereof.

Claims 7 - 10 (canceled)

Claim 11 (currently amended): A compound of the formula



having the name 10-[2-[[3,5-bis[(2,3-dihydroxypropyl)amino]carbonyl]phenyl]amino]-2-oxoethyl]-1,4,7,10-tetraazacyclododecane-1,4,7-triacetic acid,

wherein

A_1 is $-(\text{CH}_2)_m-$ or a single bond;

$(\text{CH}_2)_m$ and $(\text{CH}_2)_m'$ may independently be substituted with alkyl or hydroxyalkyl;

R_1 and R_2 are each independently hydrogen,

alkyl, -NO₂, -NH₂, -NHC(=S)NHR₁₂, -C(=O)NR₃R₄ and NR₃COR₉ where R₉ is C₄-C₁₈ straight or branched chain alkyl or hydroxyalkyl, with the proviso that at least one of R₁ and R₂ must be other than hydrogen;

R₃ and R₄ are independently hydrogen, alkyl, arylalkyl, aryl, alkoxy and hydroxyalkyl;

R₁₂ is hydrogen, alkyl or hydroxyalkyl;

R₁₃ is hydrogen, alkyl, arylalkyl, aryl, alkoxy or hydroxyalkyl;

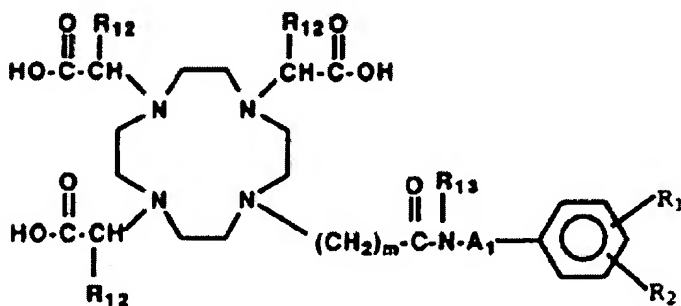
m and m' are independently 0 to 5;

and multimeric forms thereof.

Claim 12 (original): The gadolinium complex of the compound of claim 11.

Claims 13 - 38 (canceled)

Claim 39 (currently amended): A complex or a pharmaceutically acceptable salt of a complex, of a metal atom and a metal chelating ligand having the formula



wherein

A₁ is -(CH₂)_{m'} or a single bond;

(CH₂)_m and (CH₂)_{m'} may independently be substituted with alkyl or hydroxyalkyl;

R₁ and R₂ are each independently hydrogen,

$$\text{alkyl, -NO}_2, \text{-NH}_2, \text{-NHCNHR}_{12}, \text{-}\overset{\text{S}}{\parallel}\text{C-NR}_3\text{R}_4 \text{ and NR}_3\text{COR}_9 \text{ where R}_9 \text{ is C}_4\text{-C}_{18} \text{ straight or}$$
 branched chain alkyl or hydroxyalkyl, with the proviso that at least one of R₁ and R₂ must be other than hydrogen;

R₃ and R₄ are independently hydrogen, alkyl, arylalkyl, aryl, alkoxy and hydroxyalkyl;
 R₁₂ is hydrogen, alkyl or hydroxyalkyl;

R₁₃ is hydrogen, alkyl, arylalkyl, aryl, alkoxy or hydroxyalkyl;

m and m' are independently 0 to 5;

Claims 40 -50 (cancelled)

Claim 51 (new): The compound of claim 11 having the name 10-[2-[[3,5-bis[(2,3-dihydroxypropyl)amino]-carbonyl]phenyl]amino]-2-oxoethyl]-1,4,7,10-tetraazacyclododecane-1,4,7-triacetic acid.

Claim 52 (new): The gadolinium complex of the compound of claim 51.